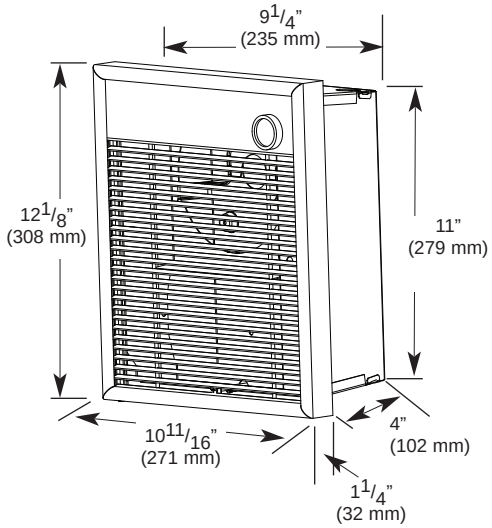
Marley Engineered Products



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FILE #E21609

SWH ARCHITECTURAL SERIES

Fan Forced Wall Heaters

Installation & Maintenance Instructions

Dear Owner,

Congratulations! Thank you for purchasing this new heater manufactured by Marley Engineered Products. You have made a wise investment selecting the highest quality product in the heating industry. Please carefully read the installation and maintenance directions shown in this manual. You should enjoy years of efficient heating comfort with this product from Marley Engineered Products... the industry's leader in design, manufacturing, quality and service.

... The Employees of
Marley Engineered Products

WARNING

Read Carefully - These instructions are written to help you prevent difficulties that might arise during installation of heaters. Studying the instructions first may save you considerable time and money later. Observe the following procedures, and cut your installation time to a minimum.

To reduce risk of fire or electric shock:

1. Disconnect all power coming to heater at main service panel before wiring or servicing.
2. All wiring must be in accordance with the National and Local Electrical Codes and the heater must be grounded as a precaution against possible electric shock.
3. Verify the power supply voltage coming to heater matches the ratings printed on the heater nameplate before energizing.
4. This heater is hot when in use. To avoid burns, do not let bare skin touch hot surfaces.
5. Do not insert or allow foreign objects to enter any ventilation or exhaust opening as this may cause an electric shock, fire,or damage to the heater.
6. Do not block air intakes or exhaust in any manner. Keep combustible materials, such as crates, drapes, etc., away from heater. Do not install behind doors, furniture, towels, boxes, or in ceilings.
7. A heater has hot and arcing or sparking parts inside. Do not use it in areas where gasoline, paint or flammable liquids are used or stored.
8. Use this heater only as described in this manual. Any other use not recommended by the manufacturer may cause fire, electric shock, or injury to persons.
9. This heater is not approved for use in corrosive atmospheres such as marine, green house or chemical storage areas.

SAVE THESE INSTRUCTIONS

IMPORTANT

WARNING

TO PREVENT HAZARD OF FIRE OR ELECTRICAL SHOCK, **DO NOT** INSTALL WITHOUT BACK BOX.

CAUTION

TO PROVIDE FOR SAFE OPERATION, THE FOLLOWING CLEARANCES MUST BE MAINTAINED.
WALL MOUNTING: • MINIMUM FOUR (4) INCHES (102MM) TO FLOUR • MINIMUM TWELVE (12) INCHES (305MM) TO ADJACENT WALLS • MINIMUM THIRTY SIX (36) INCHES (915MM) TO CEILING
CEILING MOUNTING: • MINIMUM TWELVE (12) INCHES (305MM TO ANY WALL

CAUTION

THE HEATER IS HOT WHEN IN USE. **DO NOT** INSTALL THE HEATER BEHIND DOOR, BEHIND TOWEL RACK, IN CLOSET, WHERE CURTAINS OR DRAPES COULD TOUCH OR BECOME SCORCHED BY HEATER, OR WHERE AIRFLOW TO HEATER MAY BE OBSTRUCTED. KEEP ELECTRICAL CORDS, BEDDING, FURNITURE AND OTHER COMBUSTIBLES AWAY FROM HEATER.

GENERAL

The heater is designed for recessed installation in 2" X 4" (50 mm X 101 mm) stud or larger wall sections using the wall box provided. The heater may also be surface mounted by using the Surface Mounting Frame, Model SWHSM or semi-recess mounted by using a SWHS1 (for 1" (25 mm) recess frame) or a SWHS2 (for 2" (50 mm) recess frame). All three accessories are ordered separately. The heater may be wired with standard building wire (60°C). Refer to specification chart (see pg. 4) for correct supply voltage and wire size.

NOTE: The optimum mounting height for this heater is 18" to 24" (450 to 600 mm) from floor to bottom of back box. **Do not** install closer than 4"(101 mm) from the floor.

For surface or semi-recess mounting, consult Installation Instructions packed with SWHSM, SWHS1, SWHS2.

INSTALLATION OF BACK BOX IN NEW CONSTRUCTION

NOTE: If the finished wall surface is already up, follow instructions for "INSTALLATION OF BACK BOX IN EXISTING CONSTRUCTION".

1. Determine which side of the back box is to be mounted against a stud and bend the tabs at the rear corners out 90 degrees so that the back box will be square with the stud after installation. (See Figure 1).
2. Remove one of the knockouts on socket side of the back box and install a cable or conduit connector.
3. Position back box against side of studs and secure using nails or screws as shown in Figure 1.

NOTE: <u>The back box must be installed with the front edge flush with the finished surface</u>.

4. Run power supply cable through the connector, leaving about 8" of wire inside the box.
5. Connect the supply cable ground wire to green ground screw provided.

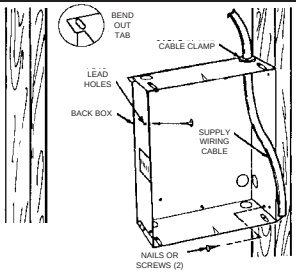


Figure 1

NOTE: Lead holes for a #8 sheet metal screw have been provided in the sides of the back box.. After the finished wall or ceiling has been put up, drive a # 8 sheet metal screw (recommended 1" long) through the side of the box not mounted to the stud. This will prevent the back box from pulling out when installing the heater assembly. (See Figure 1)

INSTALLATION OF BACK BOX IN EXISTING CONSTRUCTION

1. Carefully mark and cut a hole measuring 9-3/8" (235mm) wide by 11-1/8" (283mm) long. One edge of the hole must be cut along the edge of a stud.

CAUTION

AN ELECTRICAL SHOCK, FIRE OR WATER DAMAGE COULD RESULT IF WIRING OR PIPING IS DAMAGED DURING CUTTING. MAKE SURE ALL WIRING AND PIPING ARE CLEAR OF AREA BEFORE CUTTING.

2. Proceed to No. 1 through 5 (Installation of Back Box in New Construction).

FIELD CONVERSION FOR LOWER WATTAGE RATING

NOTE: Refer to specification chart for lower wattage ratings which are available.

To convert heater to lower wattage rating, completely remove red jumper wire from both heating elements (See Figure 2). Discard this jumper. Be sure remaining wires are securely connected.

Remove red jumper for lower wattage rating

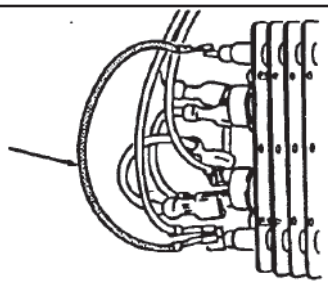


Figure 2

CAUTION

DO NOT USE A REMOTE THERMOSTAT WITH THIS HEATER. BUILT IN THERMOSTAT CYCLES THE HEATING ELEMENT ONLY. FAN DELAY CONTROL AUTOMATICALLY TURNS FAN ON AND OFF, AND PROVIDES A FAN DELAY OFF FEATURE TO REMOVE RESIDUAL HEAT AFTER THERMOSTAT HAS TURNED HEATING ELEMENTS OFF. WIRING OF HEATER IN ANY MANNER WHICH DEFEATS THE FAN DELAY OFF FEATURE CAN RESULT IN OVERHEATING AND PERMANENT DAMAGE TO HEATER, AND WILL VOID THE WARRANTY.

INSTALLATION AND WIRING OF HEATER / FAN ASSEMBLY

1. Following wiring diagram (Figure 3) connect supply wiring to heater lead wires in back box.

NOTE: For 120 and 277 volt heaters connect the white neutral supply lead to the heaters white pigtail lead, and connect the black supply lead to the heater black pigtail lead. For 208 and 240 volt heaters change the color of the heaters white pigtail lead to black by wrapping with black electrical tape. (Most electrical codes require the supply leads to be connected to black leads). Then connect the two black supply leads to the two black receptacle leads.

2. Secure supply ground wire under green ground screw in back box.

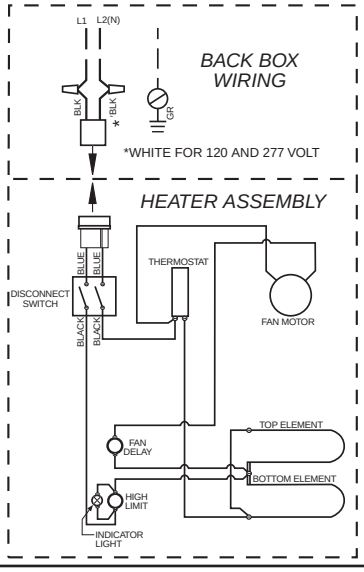


Figure 3

3. Insert wiring plug from heater/fan assembly into socket in back box.

CAUTION

BE SURE ALL WIRING IS SECURELY ROUTED AWAY FROM FAN AND ELEMENT.

4. Fit heater/fan assembly into back box and secure in place with (2) screws provided through the center slots in the fan assembly.

NOTE: Use the screws provided by the factory to install fan deck to the back box.

INSTALLATION OF FRONT COVER (GRILLE) AND THERMOSTAT KNOB

1. Attach grille bracket with screw provided in the top part of the back box as shown in Figure 4.
2. Mount top portion of the grille over the grille bracket and push down until grille is secure.
3. Insert screw through bottom of grille louver to mounting hole and tighten screw.
4. Fit the thermostat knob on to the thermostat shaft and push into place.

HEATER CHECKOUT AND OPERATION

1. After heater is completely assembled, push the disconnect switch to the “on” position and rotate thermostat knob counterclockwise until control stops. This is the minimum heat setting.
2. Turn power supply to heater “ON” at main switch panel.
3. Heater should not operate. If it operates, disconnect power and re-check wiring.
4. Rotate thermostat clockwise until it stops (maximum heat setting) and wait at least 2 minutes. Fan control will delay fan coming on until element is warm.
5. If heater and fan do not come on, disconnect power and check wiring.
6. Allow heater to continue to operate until room temperature reaches desired comfort level. Then rotate thermostat knob counterclockwise slowly until thermostat clicks off. Fan will continue to operate for a minute or so until element cools.

CAUTION

IF FAN SHUTS OFF IMMEDIATELY, THERMOSTAT WIRING IS INCORRECT AND MUST BE CHANGED. FAN MUST DELAY SHUTTING OFF TO EXPEL RESIDUAL HEAT TO PREVENT PREMATURE AGING OF INTERNAL HEATER COMPONENTS THAT COULD LEAD TO A HAZARD OR PREMATURE FAILURE.

7. It may be necessary to readjust thermostat a time or so until exact comfort level is attained. Rotation in the clockwise direction will increase the amount of time the heater will produce heat. Rotation in the counterclockwise direction will reduce the amount of time the heater is on.

NOTE: For best results, the heater should be left “ON” constantly during the heating season as the thermostat, when properly set, will maintain the desired temperature. In the full counter-clockwise position the heater will remain off until the room temperature drops well below freezing.

MAINTENANCE AND CLEANING

Your heater is designed for years of trouble-free operation and requires no special maintenance other than occasional cleaning. The motor is permanently lubricated.

Once each year, the heater should be cleaned to remove dust and other foreign material which has collected during the heating season, as follows:

1. Turn power off at main switch.
2. Remove thermostat knob and grille.
3. Use vacuum cleaner with brush attachment to remove dust and dirt that has accumulated in heater (especially around element and fan blade). Do not use water or any cleaners to clean heater components.
4. Replace grille and thermostat knob.
5. Wipe grille clean with a damp cloth. DO NOT use waxes or any cleaners that leave a residue since these may discolor during heater operation.
6. Turn the main line switch on at the switch panel to restore power to heater. The heater is now ready for another season of operation.

OPERATIONAL NOTICE

Your heater is equipped with an automatic reset high limit control that will automatically turn the heater off to prevent a fire if the heater overheats. Should this occur, the indicator light will illuminate and will continue to shine until the limit resets.

CAUTION

THE ILLUMINATED INDICATOR LIGHT SIGNIFIES THE HEATER HAS BEEN SUBJECTED TO SOME ABNORMAL CONDITION. CHECK HEATER TO INSURE THAT IT HAS NOT BEEN BLOCKED IN ANY MANNER (IF SO, REMOVE BLOCKAGE). IF THERE IS NO INDICATION OF BLOCKAGE, IT IS RECOMMENDED THE HEATER BE CHECKED BY A REPUTABLE ELECTRICIAN OR REPAIR SERVICE TO INSURE THE HEATER HAS NOT BEEN DAMAGED.

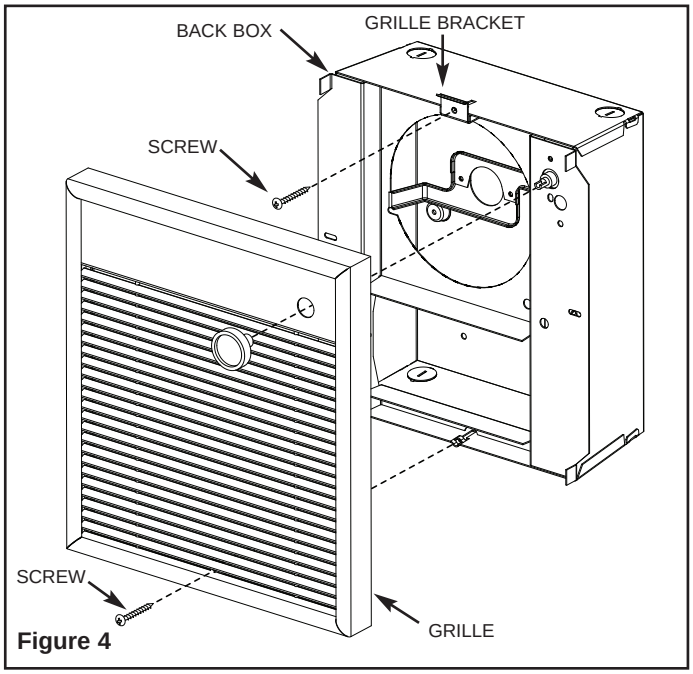
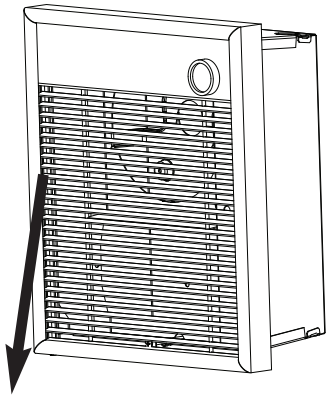


Figure 4

IMPORTANT INFORMATION

Specifications

MODEL NO.	VOLTS	AMPS	WATTS	BTU/HR	WIRE SIZE
SWH1012AG	120	8.40 4.20	1000 500	3413 1706	14AWG
SWH1512AG	120	12.50 6.25	1500 750	5120 2560	12AWG
SWH1812AG	120	15.0	1800	6143	12 AWG
SWH2024AG	240 208	8.40 4.20 7.30 3.61	2000 1000 1500 750	6826 3413 5120 2560	14AWG
SWH2027AG	277 240	7.30 3.61 6.25 3.20	2000 1000 1500 750	6826 3413 5120 2560	14AWG
SWH1527AG	277 240	5.50 2.75 4.70 2.35	1500 750 1125 562	5120 2560 3840 1920	14AWG
SWH2020AG	208	9.6 4.8	2000 1000	6826 3413	14AWG
SWHSM	Surface Mounting Frame (Accessory) Order Separately 12-1/2" (318mm)H X 10-3/8" (264mm)W X 4" (102mm)D				
SWHS1	1" (25mm) Recess Mounting Frame (Accessory) Order Separately				
SWHS2	2" (50mm) Recess Mounting Frame (Accessory) Order Separately				



NAMEPLATE

MODEL NO. **SWH1012AG** DATE CODE **0606**

SMALL ROOM FAN FORCED HEATERS

1000/500W @ 120VAC 60HZ

c UL us
774G LISTED
ROOM HEATER

MUST BE USED WITH BACK BOX.
DO NOT OPERATE WITHOUT FRONT COVER IN PLACE.

MARLEY ENGINEERED PRODUCTS
BENNETTSVILLE, SC 29512

LIMITED WARRANTY

All products manufactured by Marley Engineered Products are warranted against defects in workmanship and materials for one year from date of installation, except heating elements which are warranted against defects in workmanship and materials for five years from date of installation. This warranty does not apply to damage from accident, misuse, or alteration; nor where the connected voltage is more than 5% above the nameplate voltage; nor to equipment improperly installed or wired or maintained in violation of the product's installation instructions. All claims for warranty work must be accompanied by proof of the date of installation.

The customer shall be responsible for all costs incurred in the removal or reinstallation of products, including labor costs, and shipping costs incurred to return products to Marley Engineered Products Service Center.Within the limitations of this warranty, inoperative units should be returned to the nearest Marley authorized service center or the Marley Engineered Products Service Center, and we will repair or replace, at our option, at no charge to you with return freight paid by Marley. It is agreed that such repair or replacement is the exclusive remedy available from Marley Engineered Products.

THE ABOVE WARRANTIES ARE IN LIEU OF ALL OTHER WARRANTIES EXPRESSED OR IMPLIED. AND ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE WHICH EXCEED THE AFORESAID EXPRESSED WARRANTIES ARE HEREBY DISCLAIMED AND EXCLUDED FROM THIS AGREEMENT. MARLEY ENGINEERED PRODUCTS SHALL NOT BE LIABLE FOR CONSEQUENTIAL DAMAGES ARISING WITH RESPECT TO THE PRODUCT, WHETHER BASED UPON NEGLIGENCE, TORT, STRICT LIABILITY, OR CONTRACT.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above exclusion or limitation may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

For the address of your nearest authorized service center, contact Marley Engineered Products in Bennettsville, SC, at 1-800-642-4328. Merchandise returned to the factory must be accompanied by a return authorization and service identification tag, both available from Marley Engineered Products. When requesting return authorization, include all catalog numbers shown on the products.

HOW TO OBTAIN WARRANTY SERVICE AND WARRANTY PARTS PLUS GENERAL INFORMATION

1. Warranty Service or Parts **1-800-642-4328**
2. Purchase Replacement Parts **1-800-654-3545**
3. General Product Information **www.marleymep.com**

Note: When obtaining service always have the following:
1. Model number of the product
2. Date of manufacture
3. Part number or description

Marley Engineered Products

470 Beauty Spot Rd. East
Bennettsville, SC 29512 USA

ECR 37927

Part No. 5200-2792-001

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